### ROLE OF PUBLIC HEALTH OFFICIALS

State and local health agencies monitor plague activity throughout the State. Rangers, park staff, and others are trained to watch for sick or dead rodents or other evidence that plague may be active in a particular area and to report their findings to health authorities.

Health authorities institute preventive measures when plague is found in areas where people are. Look for and heed posted warning signs. After careful evaluation, health authorities may temporarily close the affected area to conduct flea control.

Additional information on plague and other vector-borne diseases can be obtained from your local health department.

California Department of Public Health Vector-Borne Disease Section (916) 552-9730 July 2007

Arnold Schwarzenegger, Governor

S. Kimberly Belshé, Secretary Mark Horton, MD, MSPH, Director Health and Human Services Agency Department of Public Health

# FACTS ABOUT PLAGUE IN CALIFORNIA



Plague is a highly infectious bacterial disease which affects primarily rodents. Humans and other animals can get plague if they visit or live in areas where wild rodents are naturally infected. Plague is endemic (naturally occurring) in many parts of California.

You can minimize your exposure to plague by carefully following the precautions listed in this pamphlet.

### **EXPOSURE TO PLAGUE**

People can get plague from animals in several ways. The most important routes of transmission are:

### 1. BITES FROM FLEAS OF INFECTED RODENTS.

Hungry fleas will leave a sick or dead rodent to bite another animal, including humans.



## 2. DIRECT CONTACT WITH SICK RODENTS.

Plague bacteria in the blood or tissues of an infected animal can



enter through cuts and scrapes in the skin or through the eyes, nose, and mouth.

### 3. PET INVOLVEMENT.

Cats with plague pneumonia can spread plague bacteria when they cough or sneeze. Dogs and cats can bring infected rodent fleas into the home or campsite.

### **RISK OF PLAGUE**



Plague in California occurs in the foothills, mountains, and coastal mountain areas (shaded areas on map). Plague is absent from the southeastern desert and the Central Valley. Plague is most common in the rural and undeveloped mountains, as well as the suburban foothills of some larger cities.

The last known human cases of plague in urban areas occurred in Los Angeles in the 1920s.

### WHICH ANIMALS CARRY PLAGUE?

Wild rodents in rural areas are the principal source of plague in California. Urban rats and house mice are not important sources of plague.

The most important wild rodents that

The most important wild rodents that can carry plague are ground squirrels,



chipmunks, woodrats, mice, and marmots. Plague is deadly to many rodents;

therefore, sick or dead rodents are a warning that plague may be in the area. Other wild animals -- especially rabbits, carnivores (coyote, bobcat, badger, bear, gray fox, and raccoon), and wild pigs -- can also acquire plague but rarely transmit plague to people.

Pets can acquire plague and pose a direct threat to humans. Dogs rarely become ill,



but cats are highly susceptible and can suffer a severe illness. A cat with plague will become very ill, may stop eating, and will have a fever. Swollen lymph nodes may occur, generally in the neck area.

# Ways to Protect Yourself From Plague

### **General Precautions**

- Avoid all contact with rodents and their fleas. Do not touch sick or dead rodents; report them to rangers or health authorities.
- Use caution when handling a sick pet that has been in a plague area, especially a cat. Avoid close face-to-face contact. Consult a veterinarian and inform them that the animal has been in a plague area.

### Where You Live

- Keep rodent populations down around homes and other inhabited areas. Prevent them from entering buildings. As much as possible, remove, or deny rodents access to, any source of food or shelter.
- Minimize pet contact with rodents and rodent fleas. Protect pets with flea control products. Consult your veterinarian for effective flea control methods.

### Where You Work or Play

- Do not camp, sleep, or rest near animal burrows.
- Do not feed rodents in campgrounds and picnic areas. Store food and garbage in rodent-proof containers.
- Wear long pants tucked into boot tops to reduce your exposure to fleas.
   Apply insect repellent to socks and trouser cuffs.
- Leave pets at home if possible. If not, keep pets confined or on a leash.
   Do not allow pets to approach sick or dead rodents or to explore rodents burrows. Protect pets with flea control products.

### Do not feed or touch rodents!



#### SYMPTOMS OF PLAGUE

The initial symptoms of plague include fever, chills, muscle aches, weakness, and, commonly, swollen and

tender lymph nodes (called "buboes"). Buboes most commonly occur in the knee, armpit, or groin. This form is called bubonic plague.



# Contact a physician immediately if you become ill within 7 days of being in a plague area (see map).

Plague is readily treatable when diagnosed early. You can help with the diagnosis by telling your doctor where you have been and what you have done that may have exposed you to plague.

If it is not diagnosed early, bubonic plague can progress to septicemic plague (bloodstream infection) and/or pneumonic plague (lung infection). Successful treatment is more difficult at these stages.